REMARKS

This paper is responsive to the Office Action dated November, 28, 2005. In this amendment, claims 1, 7, 10, and 12-13 are currently amended, claims 3-4, 10-11, and 14-16 are previously presented, claim 5 is original, claims 2, 6, 8-9, and 17-27 are canceled, and new claims 28-39 are presented. Reconsideration is requested based on the amendments and remarks presented herein. No new matter has been entered. The remarks included in the Applicant's response filed August 29, 2005 are hereby incorporated herein by reference.

Changes to the claims:

Claims 1, 10, 12-13 have been amended to more clearly define the scope of the present invention. New claims 28-39 have been entered to claim various aspects of the discriminating feature analysis (DFA) vector with greater specificity and are believed to be patentable over the prior art. Claim 6 has been canceled without prejudice. No new matter has been entered.

Rejection under 35 U.S.C. § 102:

Claims 10-12 are rejected under 35 U.S.C. § 102(b) as being anticipated by Yang et al. ("Detecting Faces in Images: a Survey", hereafter Yang). Claim 10 defines the limitation "wherein said DFA vectors are derived by combining said training images, respective 1-D Haar representations of said training images, and respective amplitude projections of said training images." While Yang discloses a "feature vector," Yang does not describe this feature vector as being derived by combining 1-D Haar representations and amplitude projections with the input images to obtain the feature vector. Accordingly, Yang does not anticipate claim 10 under 35 U.S.C. § 102(b).

Claims 11-12 depend from claim 10, inherit all the limitations thereof, and are therefore patentable over Yang for the same reasons as claim 10. Moreover, claims 11-12 recite further novel, nonobvious limitations not taught or suggested in the prior art. Accordingly, claims 10-12 are patentable over Yang under 35 U.S.C. § 102(b).

Rejection under 35 U.S.C. § 103:

Claims 1 and 3-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yang in view of Go (U.S. Patent 5,761,341, hereafter Go) under 35 U.S.C. § 103(a). Claim 6 has been canceled without prejudice and is therefore not discussed further herein.

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Applicant has already shown that claim 10 recites limitations not taught or suggested by Yang. Claim 1 recites limitations similar to those of claim 10 quoted above and therefore also recites limitations not taught or suggested by Yang. Moreover, Go does not cure these deficiencies. Accordingly, claim 1 recites features not taught or suggested by Yang in view of Go. Claim 1 is therefore patentable over Yang in view of Go under 35 U.S.C. § 103(a). Claims 3-5 and 7 depend from claim 1, inherit all the limitations thereof, and are therefore patentable over claim 1 for the same reasons as claim 1. Moreover, claims 3-5 and 7 recite further novel, nonobvious limitations not taught or suggested in the prior art. Accordingly, claims 1, 3-5, and 7 are patentable over Yang in view of Go under 35 U.S.C. § 103(a).

Rejection under 35 U.S.C. § 103:

Claims 13-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sung et al. "Example based learning for View-based Human Face Detection", hereafter Sung) in view of Yang under 35 U.S.C. § 103(a).

Claim 13 recites the language "wherein (1) a 1-D Haar representation; (2) an input image; and (3) amplitude projections are calculated for the images and utilized in said modeling." The proffered combination of prior art does not teach or suggest all the quoted limitations, and claim 13 is therefore not obvious in light of the proffered combination of prior art. Claim 13 is therefore patentable over Sung in view of Yang under 35 U.S.C. § 103(a). Claims 14-16 depend from claim 13, inherit all the limitations thereof, and are therefore patentable over the prior art for the same reasons as claim 13. Moreover, claims 14-16 recite further novel, nonobvious limitations not taught or suggested in the prior art. Accordingly, claims 13-16 are patentable over the 35 U.S.C. § 103(a) rejection of record.
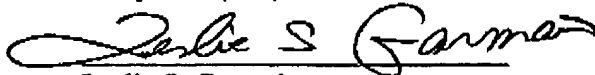
Conclusion:

The applicants therefore respectfully request reconsideration and allowance in view of the above remarks and amendments. The Examiner is authorized to deduct any fees believed due from our Deposit Account No. 11-0223.

Respectfully submitted,

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